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(21) 国際出願番号 PCT/JP97/03023 (22) 国際出願日 1997年8月29日(29.08.97) (30) 優先権データ 特願平8/230807 1996年8月30日(30.08.96) JP (71) 出願人 (米国を除くすべての指定国について) 協和醸酵工業株式会社 (KYOWA HAKKO KOGYO CO., LTD.)(JP/JP) 〒100 東京都千代田区大手町一丁目6番1号 Tokyo, (JP) (72) 発明者 ; および (75) 発明者 / 出願人 (米国についてのみ) 小野田靖夫(ONODA, Yasuo)(JP/JP) 〒411 静岡県駿東郡長泉町下土狩1334-6 Shizuoka, (JP) 野本裕二(NOMOTO, Yuji)(JP/JP) 〒411 静岡県駿東郡長泉町中土狩557 Shizuoka, (JP) 大野哲司(OHNO, Tetsuji)(JP/JP) 〒411 静岡県駿東郡長泉町下土狩1188 Shizuoka, (JP) 山田耕二(YAMADA, Koji)(JP/JP) 〒229 神奈川県相模原市大野台4-22-8 Kanagawa, (JP) 市村通朗(ICHIMURA, Michio)(JP/JP) 〒411 静岡県三島市佐野見晴台1-31-14 Shizuoka, (JP)		(81) 指定国 AU, BG, BR, CA, CN, CZ, HU, JP, KR, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, VN, ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧州特許 (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). 添付公開書類 国際調査報告書
(54)Title: IMIDAZOQUINAZOLINE DERIVATIVES (54)発明の名称 イミダゾキノゾリン誘導体 (57) Abstract Imidazoquinazoline derivatives represented by general formula (I) or pharmacologically acceptable salts thereof, which have potent and selective inhibitory effects on cyclic guanosine-3',5'-monophosphate (cGMP)-specific phosphodiesterase and are useful in, for example, treating or relieving cardiovascular diseases such as thrombosis, angina pectoris, hypertension, cardiac insufficiency and arteriosclerosis, asthma, etc. and treating sexual impotence. In said formula, R ¹ represents hydrogen, optionally substituted lower alkyl, optionally substituted cycloalkyl, optionally substituted bicycloalkyl, optionally substituted tricycloalkyl, etc.; R ² represents hydrogen, optionally substituted lower alkyl, optionally substituted cycloalkyl, optionally substituted bicycloalkyl, optionally substituted tricycloalkyl, optionally substituted lower alkenyl, optionally substituted aralkyl, etc.; R ³ represents hydrogen, optionally substituted lower alkyl, optionally substituted cycloalkyl, optionally substituted bicycloalkyl, optionally substituted tricycloalkyl, optionally substituted lower alkenyl, optionally substituted aralkyl, etc., or R ² and R ³ may form together with N an optionally substituted heterocyclic group; and X represents O or S.		

